

# Recognizing Skin Popping Scars: A Complication of Illicit Drug Use

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## Abstract

“Skin popping” is a method of injecting illicit drugs into the skin. There are numerous acute and chronic complications associated with skin popping. We present a case of a 48-year-old, African-American female patient with 40 - 60 hyperpigmented, fibrotic, depressed, round papules and plaques on the extremities, which were incidentally noticed during a clinic visit for her acne vulgaris. Skin popping scars are important clues for possible drug abuse. Healthcare practitioners should be aware of and recognize the lesions associated with this practice so further testing can be performed if clinically indicated. Recognition of the lesions and thus earlier treatment of the complications could prevent the complications of skin popping in the skin and other organs.

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**Categories:** Dermatology

**Keywords:** skin popping scars, complications, illicit drug use

## Introduction

“Skin popping” is a method of injecting illicit drugs, especially cocaine, opiates, and barbiturates, into the skin with the goal of achieving slower absorption, decreased risk of overdose, and easier administration than with intravenous drug use [1]. We present a case of skin popping scars, a chronic complication of illicit drug use.

## Case Presentation

A 48-year-old, African-American female patient presented for treatment of acne vulgaris and was incidentally found to have 40 - 60 hyperpigmented, fibrotic, depressed, round, 5 to 15 mm papules and plaques on the forearms and lower legs (Figures 1-3). The patient revealed that these lesions were sites where she had injected heroin and that she had a 10-year history of heroin and other illegal drug use. She reported a history of recurrent abscesses and cellulitis on her extremities. Based on her clinical history and characteristic skin findings, the lesions were diagnosed as skin popping scars. She was counseled regarding her condition. She reported being drug-free for the past 20 years. No biopsy was performed, and blood tests for hepatitis B virus, hepatitis C virus, and human immunodeficiency virus were negative.

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**FIGURE 1: Left lower leg with fibrotic, depressed, round**

**papules (black arrows)**

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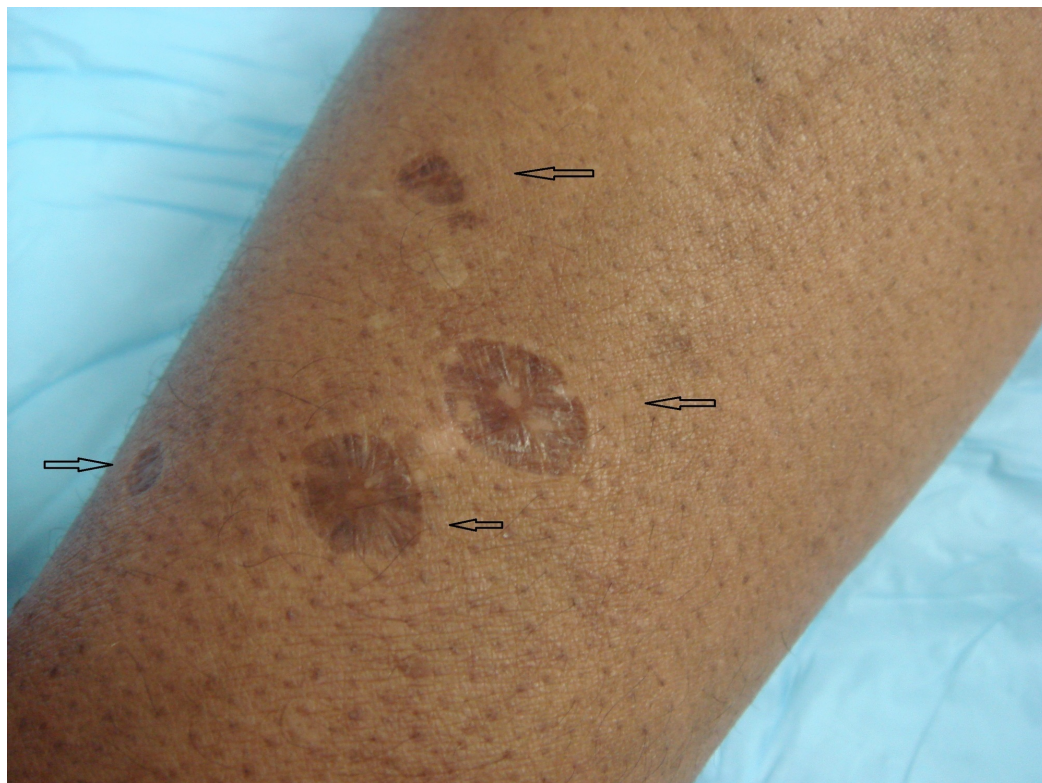
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**FIGURE 2: A close-up view of the skin popping scars with**



## atrophic, hyperpigmented papules



**FIGURE 3: Forearm with round, depressed, hyperpigmented papules and plaques (arrows)**

## Discussion

The most common acute cutaneous complications of skin popping are bacterial infections, including abscesses and cellulitis [2-3]. Skin popping allows direct inoculation of bacteria and irritants into the skin, and as a result, use of this method has the greatest risk factor for the formation of suppurative skin infections versus other routes of administration [2-3]. A study showed the odds of abscess or cellulitis among drug users using skin popping was almost five times the odds of those who used intravenous injection [4]. The most common bacteria cultured from these skin infections is *Staphylococcus aureus* either alone or in combination with anaerobic bacteria [2-5].

Other infections can occur, such as *Candida* folliculitis, botulism, tetanus, and necrotizing fasciitis [2, 4-7]. Self-treatment among this population with lancing of abscesses and antibiotics purchased on the street is common, which presents further complications due to lack of sterilization and potentially improper use of antibiotics [4].

Chronic complications include scar formation (as seen in our patient), hyperpigmentation, cutaneous granulomas from contaminants (such as talc), and even necrosis of the digits if vasoconstrictive substances (such as cocaine) are incidentally injected into small arteries (Lopez-Pineiro M, et al.: Skin popping scars: A chronic complication of illicit drug use (abstract-AB237) Presented at the 75th Annual Meeting of the American Academy of Dermatology, Orlando, FL, March 3-7, 2017. doi: 10.1016/j.jaad.2017.04.918) [2, 8]. Moreover,

cases have been reported of serum amyloid A amyloidosis in patients with histories of skin popping, which can lead to renal impairment (Table 1) [9-10]. This is thought to be due to the chronic inflammation associated with infection from skin popping. Thus, a differential diagnosis for renal insufficiency in a patient with findings of skin popping scars should include secondary amyloidosis, although consideration of this diagnosis is often overlooked [10].

Acute	Chronic
Infection	Scar formation
Cellulitis	Hyperpigmentation
Abscess	Cutaneous granuloma
Folliculitis	Necrosis of the digit
Necrotizing fasciitis	Serum amyloid A amyloidosis
Skin irritation	Renal insufficiency

TABLE 1: Complications of Skin Popping

Conclusions

Our case highlights the importance of recognizing the lesions associated with skin popping. Patients may not be aware of the potential acute or chronic complications of such a practice. Further investigation and screening for bloodborne pathogens may be necessary. With education of patients, physicians could prevent both acute and chronic complications of skin popping on the skin and other organs.

Additional Information

Disclosures

**Human subjects:** Consent was obtained by all participants in this study. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

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